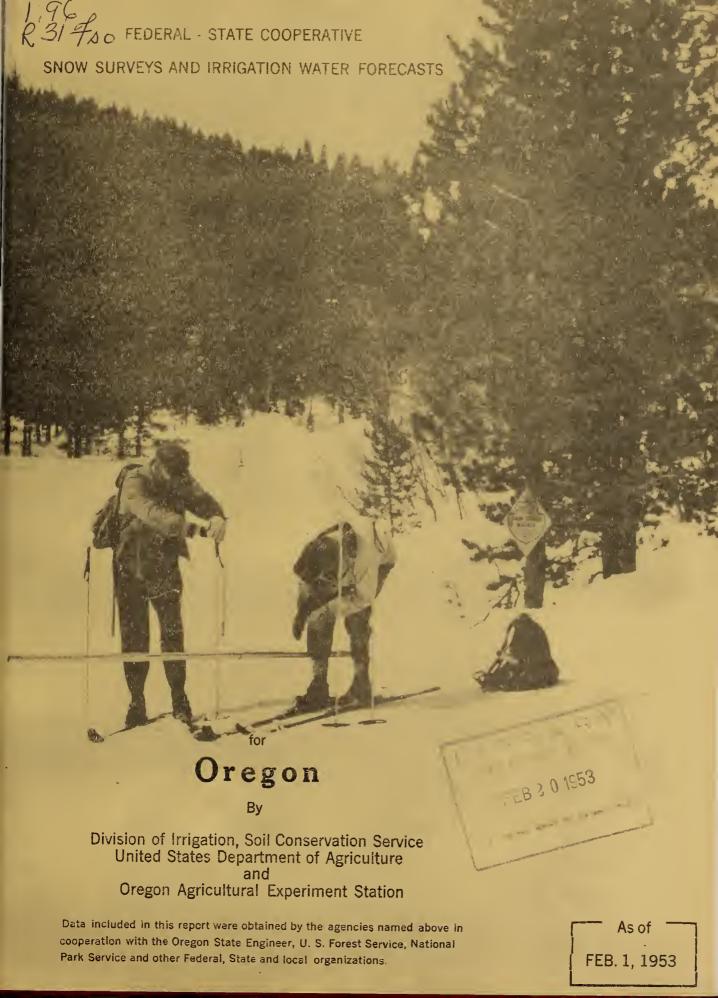
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Do not assume content reflects current scientific knowledge, policies, or practices.





UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in this bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge River Forecast Center U. S. Weather Bureau 712 Federal Office Building Kansas City 6, Missouri

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND WATER FORECASTS

FOR

OREGON

Report Prepared by

W. T. Frost, Hydraulic Engineer and Manes Barton, Assistant Water Forecaster

Issued

February 9, 1953

Division of Irrigation Engineering
Soil Conservation Service
and
Oregon Agricultural Experiment Station
P. O. Box 1149
Medford, Oregon



INDEX TO SHOW COURSES

Number Heme Elev.	INTERIOR DRAINAGE	STATE OF STA	TAND BALL TAND	911A Camae Creek 5720	GIANO LARR		Nev. 1 Bald Mountain 6720	CHEMING AN INTERES	THE PART OF THE PA	922 Mill Creek 6200	100 to 10	SILVER LAND	942 811var Creek 4900	MINTE ADMIN	TOTAL DESCRIPTION	952 Fish Creek 7900	Isaa Samuit	Silvies	Snow Mountain	MADERNIT CREEK		Hev. 6 Disaster Peak 6500																THE CALIFORNIA OREGON	POWER COMPANY SHOW STATIONS	KLAMATH LAKE BASTE		1 Beatty (COPCO) 4400- 2 Chemit (COPCO) 4761	Chiloquin (COPCO)	Fort Klemeth (COPCO)	Kirk (copco)	Lake of the Hoode (COPCO)	10 Bly 101 Ranch (COPCO) 4800	Yensey (COPCO)	GOOSE LAKE BASTE	(Openior) of the state of	g duarts mountain (curco) seco
Eler.		242E	2730	0668			4800			9200			4500			2820							ek 4216	2800										6200		3720	4630	0068	6140		;	6016 4780	6200	4850	6450	200	6550	6100			6520
Meme	Santiam Rivers	Pare t teacher de	Marton Forks	Sentiam Junction	Molfaneia Biwar		MeKentie	Widdle Brot Millerette Plane	TO THE WATER WATER	Waldo Lake	i .	COMBC FORK MILLERS CCS KINES	Champion	Meaning Dissert	100	Mary's Peak			OREGON COAST DRAINAGE	TAPOUA BIVER	100 mm	Dismond Lake	M. Umpqua nr. Laks Creek	Windler Dags		ROGUE RIVER	Althouse	Big Red Mountain	Billie Creek Divide	Fournile Lake	Grayback Peak	Bobart Lake	Hyace Frairie Reservoi	Seragg Mountain	Seven Lakes No. 1	Silver Burn	Sieldyou Summit	Wagner Butte	Whaleback	KLAMATH LAKE BASTN		Annie Spring Chemit	Crowder Flat	Gerber	Park Headquarters	Stramberry	Summer kin	Taylor Butte	GOOSE LAKE BASTN		Quarts Mountain
Number		9	1 20 00	299			631	3		621A		31	229			541						743	3.5	747	!									7220		7219	726	7218	7217			831 834	Calif.	839	828	837	836	842			118
Blev.				6070			3925	6060				680	8850	6540	4776	5166			5670	5200	4800			4400	4880	6750	200	8400	900	000		6500	4755	4500			4200	4400	0009			\$700				-	2500				
Meno	LOWER COLDMBIA DRAINAGE	WALLA WALE A DITUED	HALLA MALLA AL VES	Tollgate	TRAPTILA BIVER		Enigrant Springs	Lucky Strike		JOHN DAY RIVER		Beech Creek Sumit	Dixie Springs	Gold Center	Schoolmerm	Starr Ridge	CBOOKED BINES		Derr	Ochoo Mendows	Tanarack		UPPER DESCHUTES RIVER	Caldwall Banch	Casoade Summit	Charlton Laks	Irish-Taylor	New Dutchmen Flat	Throe Creeks Meadows	MILLANGUE PASS	LOWER DESCRUTES RIVER	2,000	Hoge Pass	Rook Creek	HOOD RIVER		Brooks Meadows	Red Hill	Tilly Jane - Mt. Hood	SANDY RIVER		Phloz Point - Mt. Bood Still Creek		WILLAWETTE RIVER BASIN	Claokanas River		Clacksmas Lake Peavine Ridge	,			
Humber				212				222					244	245	5 4 3	247B			543						\$21							ş		362			£3.	ž Ž	452			452				Š	592 591				
Elev.	201	b			6700	0099	8800	7250	9400	6340	8200	disoent	bue end	i ti one		7800	6700	8800	7800	200	2029	7100			2800	6376	2700	4800			6950	8608	9700		7126	20099	5430	8775			9400			4250			7480	5340	5850 5850	8000	5740
Hame	UPPER COLUMNIA DRAINAGE	Lower Snake in Oregon	OWYHER RIVER		1g Bend	Gold Creek	Jack Creek, Lower	Jack Creek, Upper	ilver City	South Meuntain No. 2	aylor Canyon	The following sources are adjacent	to but not on Owyhee Drainage and	partially reflect mow cond	e waterened.)	sar Creek	Buskaida, Lower	or Creek	Granite Peak	MAPON CTOOK	Tremewan Remeh	76 Creek	The state of the s	MALHEUR RIVER	Blue Mountain Spring	Crane Prairie	Book Suring	Stinking Water		BUKUT KI VKK	Barney Creek	Its Mountain Summit	1 beon	POWDER RIVER	Inthoner 7 alm	Bourne	seley Mountain	Goodrich Lake		PINE CREEK	Sehneider Meadowe	TANABA RIVER		Coverdale	GRANDE RONDE RIVER		Ameroid Lake No. 1	Beaver Reservoir	Camp Carson Moss Spring	undt Springe	aylor Green
Runber	Þ	_		,	9 6			Mev. 10 J				(The fo	to but	partia	Tup ue	-		. ~	4	, e	_	4		1		137 C3						141						157 G			181 Se			מ דו					187 C		

PRELIMINARY WATER SUPPLY OUTLOOK FOR OREGON

February 1, 1953

Oregon's 1953 water supply outlook, dependent on mountain snow-cover, varies from "fair" to "excellent" at this midwinter date and may possibly result in below normal streamflow next spring and summer in the northeastern half of the State, especially on the Walla Walla, Umatilla, Main Grande Ronde, Ochoco, Silvies and Owyhee basins. However, about one-half of the mountain snow-cover normally comes after February 1 at moderate and high elevations, and there is still time for this situation to improve. Reservoired water supplies are accumulating satisfactorily except in the Cold Springs Reservoir in Umatilla County where 20,000 acre feet are now stored in this 50,000 a.f. capacity structure.

Water content of mountain snow-cover, as of February 1, averages 114 percent normal on 93 measured snow courses throughout the State but only 64 percent of last year at this date. Snow above 5000 feet has a water content 120 percent normal but only 69 percent of last year. Below 5000 feet, the water content is 54 percent of last year and 99 percent normal. Low elevation snow normally to be found between 2000 and 3000 feet elevation at this time has generally disappeared with the heavy warm rains which have occurred the past month.

Watershed soils under the snow are still unusually dry at moderate and high elevations. However, in the lower elevations where the snow has been "rained off", soil moisture has been replenished to a moderate extent. Considerable early snow-melt water will be required to "prime" the watershed soils before satisfactory streamflow can be attained next spring.

Total water stored in 24 reported reservoirs is 43 percent greater than last year, 18 percent greater than in 1951 and 34 percent greater than average. Of the 24 reservoirs reporting, 15 are one-half full or better,

Precipitation during January has been exceptionally heavy over Oregon with the State-wide amount 200 percent average. Previous records of total January precipitation were exceeded at many stations in northwestern Oregon and at isolated stations elsewhere.

Preliminary streamflow forecasts, presented on pages 2-4 of this report, indicate normal to above normal water supplies in most of southwestern Oregon with somewhat below normal streamflows in the rest of the State, except for the far northeastern area of the Wallowa Mountains.

The following summarized runoff forecasts are based on present mountain snow cover and on the assumption that average February and March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the next two months will correspondingly modify these estimates:

	·····					
		Seasonal				
BASIN AND STREAM	Forecas	st 1953	%	Measure	d Runof:	f*10-Yr.
	Apr- Sept.		IO-Yr. Avg.		1950	Avg. 1941-50
NORTHCENTRAL OREGON						
Hood R., nr. Hood River	275.0		86	358.8	497.6	318.8
Hood R., W. Fk., nr. Dee	125.0		81	156.4	228.6	155.3
White R., below Tygh Valley	130.0		84	202.6	233.1	155.0
UMATILLA-WALLA WALLA						
Walla Walla R., So. Fk.,						
nr. Milton	55.0		76	Ъ	88.3	72.2
Umatilla R., nr. Gibbon	50.0		54	ъ	110.1	92,9
Umatilla R., at Pendleton	100.0		55	Ъ	213.0	182,5
McKay Cr., nr. Pilot Rock	20.0		63	Ъ	39.9	31.9
NORTHEASTERN OREGON						
Grande Ronde R. at LaGrande	125.0		63	165.1	235.8	199,2
Catherine Cr., nr. Union	77.0		107	62.7		71,8
Bear Cr., nr. Wallowa	85.0		116	56.5		73.2
Lostine R., nr. Lostine	150.0		117	110.0		127.8
Hurricane Cr., nr. Joseph Wallowa R., E. Fk., nr.	52.0		113	41.0	42.8	46.2
Jose ph2	12.5		108	9,8	10.8	11.6
Imnaha R., at Imnaha	350.0		115	267.5	287.7	303.0
Powder R., at Salisbury	57.0		89	69.8	66.1	64.3
Burnt R., nr. Hereford ³	32.0		73	54.8	49.7	43.6
EASTERN OREGON						
Malheur R., nr. Drewsey	76.0		100	72.3	63.3	75.9
Malheur R., N. Fk., at Beulah ⁴	63.0		101	54.4	63.6	62.2
Owyhee Res., net inflow ⁵	00,0	435.0ª	86	54.4 b	411.5ª	504.0
John Day R at Prairie City ⁶	47.0	200,0	89	44.3	43.1	52.9
					-04-	0.50

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1952 records not available at this time.

¹⁰bserved flow plus P.P.&L.Co. power canal.

² Includes power plant tailrace.

³⁰bserved flow plus change in storage in Unity Reservoir.

⁴Observed flow plus change in storage in Agency Valley Reservoir.

⁵From U.S.B.R. records of inflow.

⁶⁰bserved flow plus Prairie Power Canal.

amarch-July.

b1951 data not available.

	Se	easonal S	Streamf	low in	Thousand	d A.F.
BASIN AND STREAM	Foreca	st 1953	%	Measure	d Runof:	f*10-Yr.
	Ap r- Sept.	Other Period	lo-Yr. Avg.		1950	Avg. 1941-50
EASTERN OREGON (Cont'd)						3
John Day R., Mid. Fk., at Ritter John Day R., N. Fk., nr.	115.0		90	G	125.8	127.4
Dale	230.0		88	0	267.7	261.1
Strawberry Cr., nr. Prairie City	7.5		89	7. 9	7.1	8.4
HARNEY BASIN						
Silvies River, nr. Burns	70.0		71	116.4	83.8	97.7
CENTRAL OREGON						
Ochoco Res., net inflow7 Crescent Cr. at Crescent	20.0		67	Ö	32.8	29.9
Lake 8	22.0		116	0	35.0	19.0
Odell Cr., nr. Crescent Tumalo Cr., nr. Bend ⁹	32.0 53.0		110 110	36.0 c	40.3 60.4	29.0 48.0
Squaw Cr., nr. Sisters	56 _• 0		115	0	60.5	
SOUTHCENTRAL OREGON	- •				·	197
Deep Cr., above Adel		80.0 ^b	125 ^b	71.9b	70.3 ^b	63.9 ^b
KLAMATH LAKE BASIN						
Upper Klamath Lake, net inflow 10	562.0		121	611.0	423.9	452.9
SOUTHERN OREGON						
Hyatt Res., net inflow11	6.6		114	Ċ	6.3	
Fourmile Lake, net inflow 12 Little Butte Cr., N. Fk.,	5.8		72	C	8.6	8.1
below Fish Lake 13	13.4		94	c	17.9	14.3

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1952 records not available at this time.

⁷⁰bserved flow of Ochoco Cr., + Canal + changes in storage of Ochoco Res. 80bserved flow plus changes in storage of Crescent Lake Reservoir.

⁹ Observed flow plus Columbia Southern Canal.

¹⁰From COPCO records of inflow.

¹¹ Observed flow of Keene Cr. Canal below Hyatt Lake + storage changes + 1600 a.f. for estimated evaporation during April-September period.

¹²⁰bserved outflow into Cascade Canal + storage changes + 1600 a.f. for estimated evaporation during April-September period.

¹³ Observed flow plus changes in storage in Fish Lake Reservoir + 90% of Cascade Canal inflow.

bApril-June.

⁰¹⁹⁵¹ data not available.

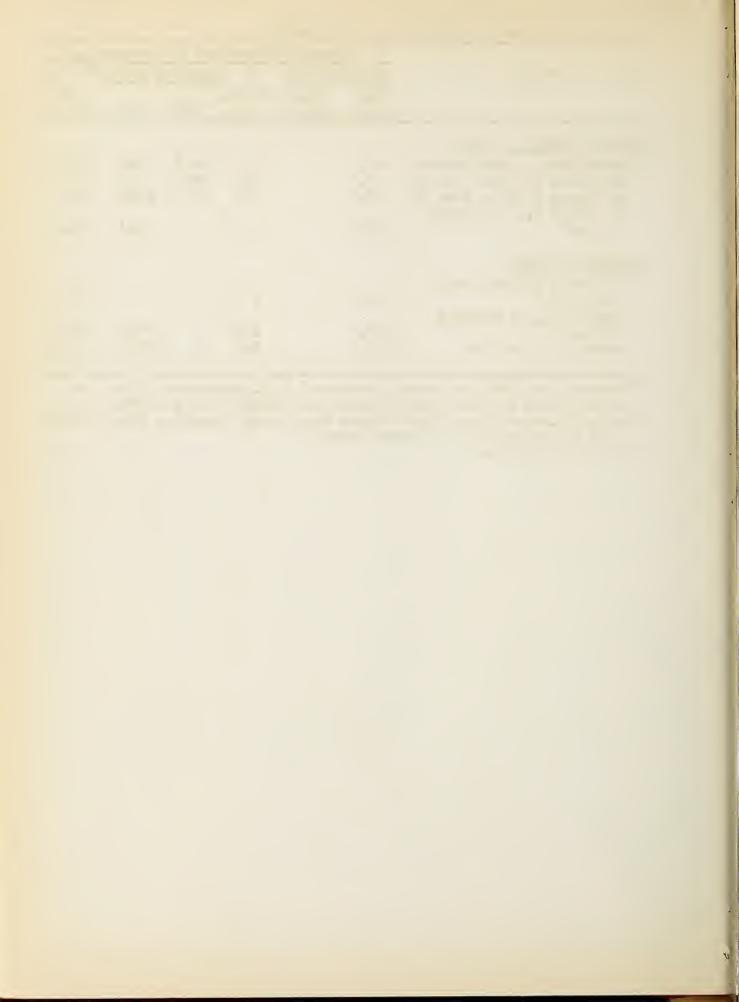
Streamflow Forecasts - February 1, 1953 (Cont'd)

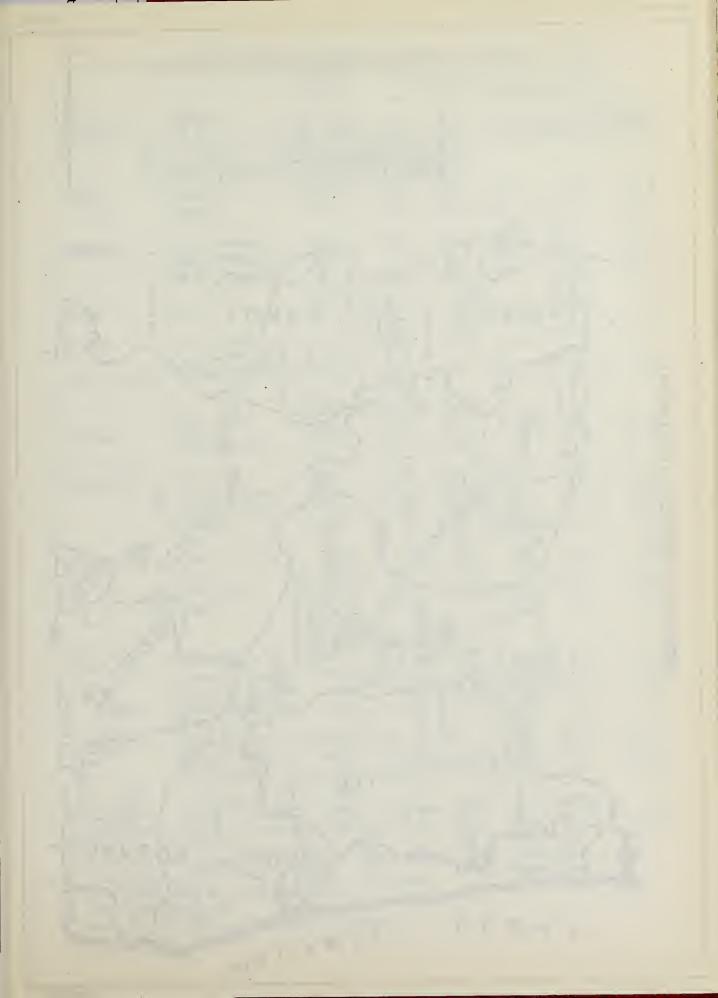
	S	easonal	Streamf	low in	Thousan	d A.F.
BASIN AND STREAM	Foreca	st 1953	%	Measure	ed Runof	f*10-Yr.
	Apr- Sept.	Other Period	10-Yr. Avg.		1950	Avg. 1941-50
SOUTHERN OREGON (Cont'd)						ř
Rogue River, above Prospect Clearwater R., abv. Trap Cr.	347.0 62.0		114 100	345.5 80.8	380.5 71.1	305.1 62.0
No. Umpqua R. below Lake Cr. No. Umpqua R., at Toketee	165.0		103	195.7	189.0	160,5
Falls 14	385.0		103	C	472.1	373.4
WILLAMETTE VALIEY Willamette R., Mid. Fk.,						
at Lowell McKenzie R., at McKenzie	900.0		105	c	c	855,0
Bridge	580,0		103	c	771.8	_
McKenzie R., nr. Vida	1220.0		101	o	1725.2	1214.0

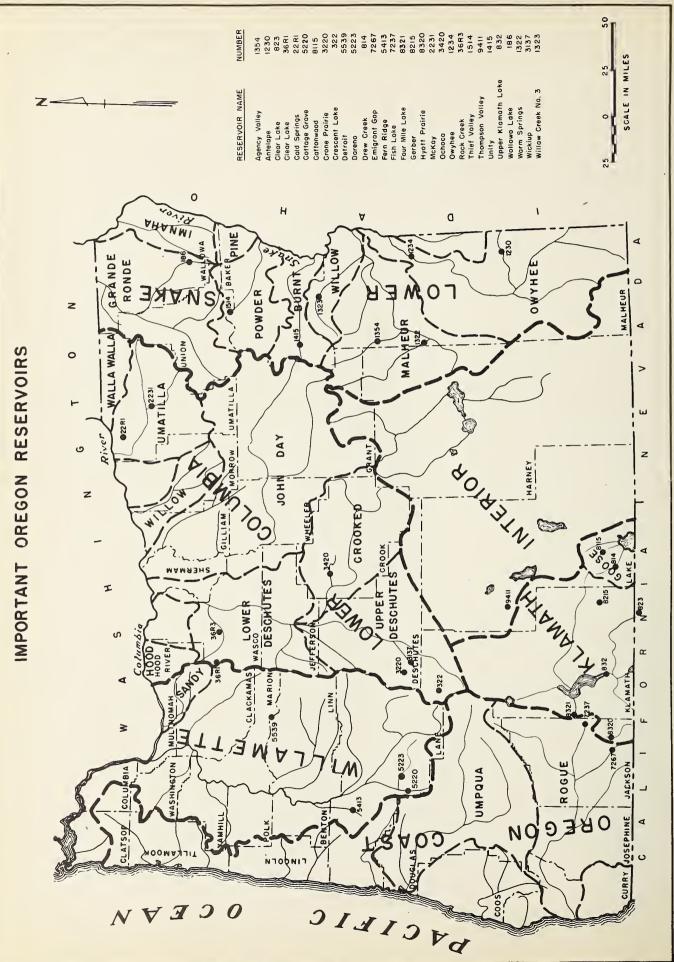
^{*}Discharge data from preliminary records of U. S. Geological Survey and

Oregon State Engineer. 1952 records not available at this time.

14Sum of observed flow at North Umpqua River above Clearwater River (#7424) and Clearwater River at Mouth (#7423). CData not available.







STATUS OF OREGON RESERVOIR STORAGE - FEBRUARY 1, 1953

	STATUS OF OREG	ON RESERVO	IR STOR	AGE - F	EBRUARY	1, 1953	3
		USABLE	THOU	SAND AC	RE FEET	IN STOR	RAGE
		CAPACITY		ABOUT	FEBRUAR	Y FIRST	•
BASIN and	RESERVOIR	(Thousand	No dividuality.			I()-yr.Avg.
STREAM		Acre Feet)	1953	1952	1951		
		UPPER COLU					
		·					
		Lower Sna					
Owyhee	Antelope	36.5			16.8		
	Owyhee	715.0	511.7	446.7	451.7	377.6	446.1
Malheur	Warm Springs	191.0	190 %	20.6	20.8	11.7	74.8
Mariout	Agency Valley		24.4		13.6		_
	Willow Creek #3			N.R.	N.R.		_
	W2220W 0200R // 0	22,0	TA Tre.	AT & AL	71.07.0	74.9.7.0	71 6 714
Burnt	Unity	25.2	5.7	5.4	8.8	2.4	8.4
							ha ad
Powder	Thief Valley	17.4	N.R.	N.R.	est sed		12.2 ^d
Grande Ronde	Wallowa Lake	40.9	27.3	10.6	18.8	12.5	20.1
			~,,,,				
		LOWER COLU	MBIA DR	AINAGE			
Umatilla	McKay	74.0	2277	21.4	57.1	25.2	38.1
	Cold Springs	50.0	2000		41.7		29.0
Deschutes	Ochoco	46.0	_	23.1		1.8	19,1
		54.9	-	N.R.	-	53.9	
		55.3	43.0			35.0	
	Wickiup	180.0	157.5	165.3	187.0	172.4	77 . 18
Willamette	Cottage Grove	30.1ª	0.1	0.2	0.0	0.7	0.18
WIIIamooo	Dorena	70.5ª	0.8	1.9	0.1	0.0	
	Fern Ridge	94.2ª	35.5	2.2	42.0	55.9	13.7f
	Detroit	340.0ª	114.8		### O		2001
	De of ore	540.0	TT.# ♥O				
		WEST COA	ST DRAI	NAGE			
Rogue	Fish Lake	7,8	6.5	5.0	5.2	4,6	4.2
**********	Fourmile Lake ^b	16.1	12,2	6.2	11.4	7.0	5.4
	Emigrant Gap	8.3	8.6	4.9			5.1
	Hyatt Prairieb	16.1	10.4	3.2	4.7		4.3
Wlamath	Timme to Y'll am alice 7	E04 00	4.00	PCC 7	AARR	04.0	707.0
Klamath	Upper Klamath I	•	469,8		443.7		307.6
	Gerber	94.0	58.4	23.3		15.4	31.8
	Clear Lake	440,2	251.6	77.4	99.8	102.8	206.7
Goose Lake	Cottonwood	4.1	0.4	0,0	0.0	0.4	0.1
	Drew	62.5	46.3	35.3	48.0	36.2	34.7
N.R No Re	-				d ₁₉₄₁		
8-1	Low o				# OF 1	- 10 10	

· •1943-1950 f1942-1950

N.R. - No Report

a Storage space reserved for flood control.

bBy ditch to Rogue River side from

Klamath Drainage.

**Based on gage zero elevation of 4135.0.

. , The following tabulation of Oregon stream basins presents the water content of the snow about February 1, 1953, as percent of the same date in 1952 and

1951 and average of record:

DRAINAGE	No. of Courses	Yrs. of		ry 1, 199 t as per	
	Averaged	Record	1952	1951	Avg.
UPPER COLUMBIA DRAINAGE (Le	ower Snake in	Oregon)			
Owyhee River	1	12	39	91	76
Malheur River	3	15-21	58	105	111
Burnt River	4	13-18	71	110	124
Powder River	5-6	12-14	77	T05	117
Pine Creek	1	15	74	144	146
Imnaha River	2	11-22	73	123	134
Grande Ronde River	8	10-24	73	106	109
Wallowa River	2	11-22	73	123	134
Catherine Creek	1	15	72	99	95
Main Grande Ronde	5	10-24	72	96	95
LOWER COLUMBIA DRAINAGE	-	-			
Walla Walla River	ı	21	6 5	85	92
Umatilla River	5	13-24	67	88	94
Willow Creek	1	23	85	124	144
John Day River	10	12-23	74	111	118
North Fork	5	12-23	83	112	121
Middle Fork	3	16-18	68	101	116
Main Branch	3	16-21	65	112	122
South Fork	1	17	58	115	100
Crooked River	3	15 - 23	59	86	106
Deschutes River	5	16-22	66	92	129
Hood River	2	15	72	83	110
Willamette Valley	8	10-22	58	79	103
Sandy River	2	15	72	83	110
Clackamas River	1	15	50	54	82
Santiam Rivers	3	12-15	55	77	101
McKenzie River	3	10-15	59	79	105
Middle Fork	2	14-22	50	87	105
Coast Fork	ĺ	14	$\frac{1}{4}$ 5	92	107
Mary's River	ī	10	PE		3
PACIFIC COASTAL STREAMS					
Umpqua River	3	13-23	61	113	126
Rogue River	1 4	10-20	67	135	151
Upper Rogue	4	13-18	67	109	132
Bear-Little Butte Creel	c 5	16-20	65	142	142
Applegate River	5	10-16	73	157	174
Illinois River	2	14	52	175	162
Klamath Lake Basin	15-16	12-26	64	114	132
Williamson River	5	15-26	71	101	142
Sprague River	4-5	22-26	41	69	73
Gerber-Clear Lake Basin		12-23	65	132	137
Goose Lake Basin	3	14-23	62	129	116
INTERIOR DRAINAGE					
Warner Lake Basin	1	14	59	127	127
Silver Lake Basin	ī	12		106	172
Chewaucan River	1	23	65	132	145



OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1953

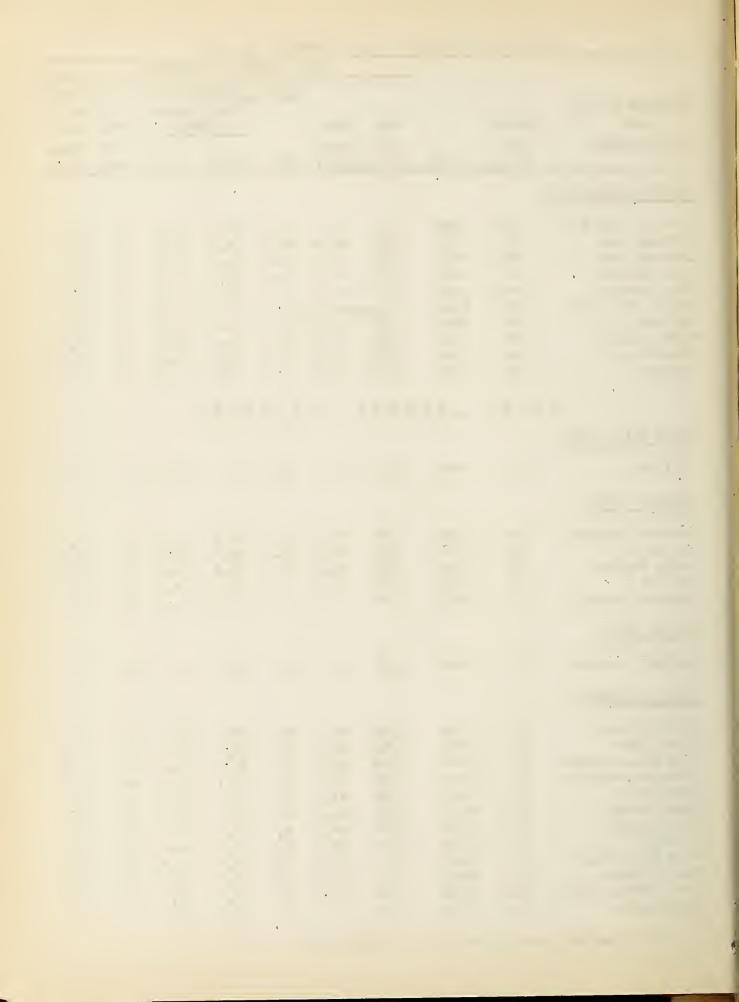
SNOW COVER MEASUREMENTS												
						Content		Past	Record			
							lpprox.		Avg.			
DRAINAGE BASIN	Number			Snow		Da	ate		Water			
and SNOW COURSE	o r State	Elev.	of. Survey	Depth	1953	1952	T 951	of Pod	Cont.			
DION COORDI	Donoe	DIO A.	Dar vey	(1110)	шоо о	2002	7007	Itou.	1212/			
	<u>UPPER</u>		U M B I			NAGE	2					
OWYHEE RIVER												
Rodeo Flat	Nev.8	6800	1/28	20.4	.6,6	13.0	6,2	3	8.8			
Big Bend	Nev.6	6700	1/28	24.1	7.0	12.5	8.5	5	JD.4			
Fry Canyon Gold Creek	Nev.7 Nev.5	6700 6600	1/28	20.7 16.2	5,0	13.3 8.5	6.0 5.2	3 4	8,5 6,0			
	Idaho 12	6400		Measur			12.9	6	10,2			
So. Mtn. No. 2	Idaho13	6340	1/31	20.0	6.9	17.9	7,6 ^a	12	آر 9.			
MALHEUR RIVER												
Blue Mtn. Spgs.	133	59 00	1/28	40.1	13.5	19.1	10.4	21	9.8			
Rock Spring	134	5100	1/30	16.4	5.5		4.3	17	4,6			
Stinking Water	135	4800	1/27	2.7	0.9b	6.9	4,2	15	3,6			
BURNT RIVER												
Dooley Mountain	156	5430	1/30	25.9	8.8	11.9	7,1	14	6,6			
*Gold Center	249 142	5340 5100	1/29 1/30	33.4 27.2	11.7	14.1	10.5	13	8,4			
Tipton Blue Mtn. Summit	142	5098	1/31	19.5	6.4	13.2 11.0	6.8	16 18	7.5 6.2			
			-,		•		3,0		•			
POWDER RIVER			,									
Anthony Lake	155	7125	1/31	56.4			16,5	12	19,1			
Goodrich Lake Bourne	15 <i>7</i> 154	6775 5800	1/28 1/30	90.2 44.4		38.3 19.9	25 . 5	4 13	27.8			
Dooley Mountain	156	5430	1/30		8.8		7.1	14	6,6			
Eilertson Meadows		5400	2/1		9.9			13	8,1			
*Gold Center	249	5340	1/29	33.4	11.7	14.1	10.5	13	8,4			
PINE CREEK												
Schneider Meadows	161	5400	1/31	86.2	29.7	39 •9	20.6	15	20.3			
IMNAHA RIVER												
*Aneroid Lake No.	1 183	7480	2/1	88,2	30,6	40.8	24.1	22	21.2			
*Aneroid Lake No.		7000	1/31	65.8		-		11	19.2			

^{*}Not located directly on this drainage area. Telegraphic.

bEstimated.

DRAINAGE BASIN and Number Date Show Course Same Approx Avg. A	0.	REGON SNO	W SURVE	YS - AB						
DRAINAGE BASIN And Number Date Snow Date Date Date Snow Date					SN		-			7
SNOW COURSE Cr	DDA THACE DAGTH					Water			Past	
### SNOW COURSE Cr State Elev. Survey (In.) 1953 1952 1951 Red. (In.)		Number		Date	Snow				Yrs.	
### State Elev. Survey (In.) 1953 1962 1961 Red. (In.)										
Ameroid Lake No. 1 183 7480 2/1 88.2 30.6 40.8 24.1 22 21.2 Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Ameroid Lake No. 2 163A 7000 1/31 65.8 23.5 33.1 20.0 11 19.2 Comp Carson 187 5970 1/31 14.4 5.8 10.2 6.3 10 7.3 Moss Spring 186A 5850 1/31 48.4 14.7 20.5 14.8 15 15.5 Beaver Reservoir 188 5340 Report Delayed 8.4 6.6 14 8.6 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Schoolmarm 248 4775 1/30 49.2 16.1 24.9 18.9 21 17.5 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 MILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 Millow Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 11.2 13.1 9.0 23 7.8 Millow Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mm. Springs 133 5900 1/28 40.1 15.5 19.1 10.4 21 9.3 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Millow Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mm. Springs 133 5900 1/28 40.1 15.5 19.1 10.4 21 9.3 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Millow Mm. Summit 141 5098 1/31 19.5 6.4 10.6 8.4 17 4.5 11.5 Blue Mm. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 Millow Mm. Summit 144 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 Millow Mm. Summit 2460 4800 1/29 14.0	511011 00 01152	-	Elev.			1953	1952	1951		
Ameroid Lake No. 1 183 7480 2/1 88.2 30.6 40.8 24.1 22 21.2 Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Ameroid Lake No. 2 163A 7000 1/31 65.8 23.5 33.1 20.0 11 19.2 Comp Carson 187 5970 1/31 14.4 5.8 10.2 6.3 10 7.3 Moss Spring 186A 5850 1/31 48.4 14.7 20.5 14.8 15 15.5 Beaver Reservoir 188 5340 Report Delayed 8.4 6.6 14 8.6 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Schoolmarm 248 4775 1/30 49.2 16.1 24.9 18.9 21 17.5 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 MILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 Millow Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 11.2 13.1 9.0 23 7.8 Millow Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mm. Springs 133 5900 1/28 40.1 15.5 19.1 10.4 21 9.3 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Millow Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mm. Springs 133 5900 1/28 40.1 15.5 19.1 10.4 21 9.3 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Millow Mm. Summit 141 5098 1/31 19.5 6.4 10.6 8.4 17 4.5 11.5 Blue Mm. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 Millow Mm. Summit 144 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 Millow Mm. Summit 2460 4800 1/29 14.0	ADAMAE DAMAE DITTE									
Anthony Lake	GRANDE RONDE RIVER									
Ameroid Lake No. 2 183A 7000 1/31 65.8 23.5 33.1 20.0 11 19.2 (20mp Carson 187 5970 1/31 18.4 5.8 10.2 6.3 10 7.3 Moss Spring 186A 5850 1/31 48.4 14.7 20.5 14.8 15 15.5 Beaver Reservoir 188 5340 Report Delayed 8.4 6.6 14 8.6 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Schoolmarm 248 4775 1/30 4.4 1.3 5.1 3.9 5 3.0 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 **Lower Market Mark				2/1						
Cemp Carson 1867 5970 1/31 18.4 5.8 10.2 6.3 10 7.3	•			1/31				_		
Moss Spring	-			1/31				-		
Besver Reservoir 188 5540 Report Delayed 8.4 6.6 14 8.6 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5										
Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 % Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Start River 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Meachem 221 4300 1/30 49.2 16.1 24.9 18.9 21 17.5 MALLA WALLA RIVER Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 MATILIA RIVER Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Enigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 MILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Enigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 MILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Lucky Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.4 21 9.8 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 22.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 22.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 22.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 22.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1/29 31.8 10.5 10.6 10.0 13 8.4 Strike 12.5 5000 1				•		-				
**Hucky Strike					49.2					
L O W E R C O L U M B I A D R A I N A G E	*Lucky Strike	223	5050	1/29		10.5			13	
#Anthony Lake							-			
WALLA WALLA RIVER Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 UMATILIA RIVER Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meacham 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 46.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 30.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tiptom 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 31.8 10.5 10.6 10.0 13 8.4	Meacham	221	4300	1/30	12.6	4.0	8.0	6.2	24	6.3
Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 UMATILIA RIVER Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meacham 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Cold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 13.8 10.5 10.6 6.8 18 6.2	<u>L</u>	<u>OWER</u>	COL	U M B	I A D	RAI	NAG	<u> </u>		
UMATILIA RIVER Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 18.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	WALLA WALLA RIVER									
Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Tollgate 212 5070 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 31.8 10.5 10.6 10.0 13 8.4	Tollgate	212	5070	1/30	49.2	16.1	24.9	18,9	21	17.5
Tollgate 212 50 70 1/30 49.2 16.1 24.9 18.9 21 17.5 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meacham 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 Tizee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	UMATILIA RIVER									
Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Meacham 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	Arbuckle Mountain	241	5400		28.8	11.2	13.1	9.0	23	7.8
Meachem 221 4300 1/30 12.6 4.0 8.0 6.2 24 6.3 Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER **Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 **Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 **Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	-						,		21	17.5
Emigrant Springs 222 3925 1/30 4.6 1.5 7.8 4.8 24 6.0 WILLOW CREEK Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 01ive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 81ue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Cold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 2 12ee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 81ue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 2 Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 8eech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3										
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Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 JOHN DAY RIVER *Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 12ee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	Furfactor obtings	666	39 LD	1/30	∓. ∪	1.0	7.8	4.8	44	6.0
#Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	WILLOW CREEK									
*Anthony Lake 155 7125 1/31 56.4 19.2 23.2 16.5 12 19.1 Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	Arbuckle Mountain	241	5400	1/30	28.8	11.2	13.1	9.0	23	7.8
Olive Lake 245 6000 1/30 45.8 14.0 18.9 13.3 17 11.5 Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3	JOHN DAY RIVER									
Blue Mtn. Springs 133 5900 1/28 40.1 13.5 19.1 10.4 21 9.8 Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3					56.4	19.2	23.2	16.5	12	19.1
Arbuckle Mountain 241 5400 1/30 28.8 11.2 13.1 9.0 23 7.8 Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3				1/30						
Gold Center 249 5340 1/29 33.4 11.7 14.1 10.5 13 8.4 *Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3										
*Izee Summit 964 5293 1/29 20.5 6.2 10.7 5.4 17 6.2 Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3										
Starr Ridge 247B 5156 1/29 13.8 4.0 8.7 4.6 17 4.4 Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3										
Tipton 142 5100 1/30 27.2 8.8 13.2 16 7.5 Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3										
Blue Mtn. Summit 141 5098 1/31 19.5 6.4 11.0 6.8 18 6.2 *Lucky Strike 223 5050 1/29 31.8 10.5 10.6 10.0 13 8.4 Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3										
Beech Creek Summit 246A 4800 1/29 14.0 5.0 6.8 5.1 16 4.3				1/31	19.5		11.0	6.8		
	•									
	Schoolmarm	246A 248	4800 4775	1/29	14.0 4.4	5.0 1.3	6,8 5,1	5.1 3.9	16 5	4 _• .3 3 _• 0

Not located directly on this drainage area.



				SN	OW COVE	ER MEASU	JREMENTS	 -	
					Water	Content	(In.)	Past	Record
DRAINAGE BASIN					-	Same 1	Approx.		Avg.
and	Number		Date	Snow		Dat	ce		Water
SNOW COURSE	or	73.2	of	Depth	7055	7070	20.52	of	
	State	Elev.	Survey	(In.)	1953	1952	1951	Rca.	(In_{ϵ})
CROOKED RIVER									
Derr	343	5670	1/31	27.4	9.3	10,9	7.3	15	6,7
Ochoco Meadows	341	5200	2/2	22.9	8.4	14.5	10,1	23	7,4
Mark's Creek	344	4540	2/2	4.0	1.4	6.8	4,9	15	3,9
DESCHUTES RIVER									
New Dutchman Flat	324A	6400	1/28	110,1	39.1	54.1	44.0	4	39,0
Windigo Pass	744	5800	1/31	102,4	38.3	45,4	36,4	2	40,9
Charlton Lake	327	5750		Məasur		36.2		6	13,2
Three Creeks Mdws.	331	5600	1/28	47.3	17.9	25,6	19.5	20	12,2
Willamette Pass	323	5600	1/30	89.3	28,3	47,4	32.6	3	31,5
Irish-Taylor	329	5500	1/31	68.0	26.2	45.2		1	45.2
*Waldo Lake	521A	5500	1/31	57.7	21.0	35.5	20.4	6	14.6
Tangent	**	5400	1/28	68.3	23.3	32.3		1	32.3
Cascade Summit	321	4880	1/31	55.2	21.7	38.2	26.0	22	20.9
New Crescent Lake	325A	4800	1/29	42.2	13.8	~~		0	~~
*Chemult	834	4760	1/31 1/29	40.3	15.4	18.7	12.3	16	8,4
Crescent Lake	325	4760	1/29	36.0	13.6	40.7	14.0	15	8.8
Hogg Pass	351 **	4755 4600	$\frac{1}{31}$	81.4 13.4	31.8 4.7	49.1	37.4	15	27.4
Black Pine Spg. Caldwell Ranch	326	4400	2/1	30.5		IO.7	 11,0ª	1 8	10.7
Hungry Flat	320 **	4400	1/28	19.0	7.2	15.7 12.0	11400	1	6.1 12.0
HOOD RIVER		1100	, ~3	20 0	, •	## O		-	10,0
Tilly Jane	432	6000	1/25	68.8		49.5	40.4	5	37.9
Red Hill	434	4400	2/1			48.7			39.3
Greenpoint Res.	433	3400	1/29	14.0	5.4	19. 4	14.3	5	19.0
WILLAMETTE VALLEY	STRE.MS								
SANDY RIVER ¹									
Phlox Point	452	5600	2/2	100.4	43.5	53,8	48.6	15	37.9
Still Creek	451	3700	2/2	37.4	15.1	27.9	22.1	15	15,6

^{*}Not located directly on this drainage area.
**Auxiliary snow station; average of 3 to 5 samples taken at same point each survey.

¹ Not strictly a part of the Willamette Drainage; those surveys are indicative of west slope conditions.

apartly estimated.



				SN	OW COVE	R MEAST	UREMENT	S	
					Water	Content	t(In.)	Past	Record
DRAINAGE BASIN						Same	Approx.		Avg.
and	Number		Date	Snow		Da	ate	Yrs.	Water
SNOW COURSE	or		of	Depth				of	Cont.
	State	Elev.	Survey	(In.)	1953	1952	1951	Red.	(In.)
WILLMETTE VALLEY	STREAMS	(Cont'd)							
CLACKAMAS RIVER									
Peavine Ridge	591	3500	1/31	27.0	9.8	19.5	18.0	15	12.0
Big Bottom	عديد	3118	1/21	0.0	0.0	9,3	7.7	2	8.5
Lake Harriet	સ્ટર્	2045	1/31	0.0	0.0	8.7	3.2	2	6,0
SANTIAM RIVERS									
Hogg Pass	351	4755	1/31	81.4	31.8	49.1	37.4	15	27.4
Santiam Junction	552	3990	1/31	46.5	17.4	36.5	24.1	12	18.6
Marion Forks	553	2730	1/31	23.6	8.2	19.1	13.2	12	11.1
Breitenbush	551	2325 .		Measu		9.7	5.4	9	4.4
Whitewater Bridge	<u> </u>	2175	1/31	1.0	T	10.8	6.0	3	12.4
Detroit (new town) Detroit Dam	春春) · · · · · · · · · · · · · · · · · · ·	1500+ 1580	1/31	0.0	0.0	6.7	T	3 3	6.1
Mill City	444	826	1/31	0.0	0.0	0.0	0.0	3	2.4
Snow Line: Approx			1/01	0,0	0,0	0,0	0,0	Ü	2.0
McKENZIE RIVER									
MoKenzie	531	4800	2/2	66.4	40.2°	42.7	34.6	9	26.4
Hogg Pass	351	4755	1/31	81.4	31.8	49.1	37.4	15	27.4
Santiam Junction	552	3990	1/31	46.5		36.5	24.1	12	18.6
Dead Horse Grade	オポ	3800	2/2	27.7	10.3	25.3	12.7	3	25.2
White Branch Slide		2800	2/2	0.0	0.0	12.3	5.7	4	12.4
Lost Creek Ranch	- ** **	1956	2/2	0.0	0.0	12.7	~~	1	12.7
McKenzie Bridge	38.48	1372	2/2	0.0	0.0	6.7	0.0	4	5.1
Vidae Snow Line: Approx	imately ?	800 3000‡	2/2	0.0	0.0	0.0	0.0	3	1.3
MIDDLE FORK WILI									
*Charlton Lake	327	5750		Measu		36.2	en su	6	13.2
Willamette Pass	323	5600	1/30		28.3	47.4	32.6	3	94.4
Waldo Lake Cascade Summit	521A	5500 4880		57.7 55.2		35.5	20.4	6	14.6
Champion	32 1 52 2	4880 4 5 00	1/30	42.7		38.2 42.7	26,0 20,8	22 14	20.9 17.8
Salt Creek Falls	32.X	4000	1/31	26.5	9,6	21.4	12.6	3	20.4

Not located directly in this drainage area.

Auxiliary snow station; average of 3 to 5 samples taken at same point

each survey.
Water Content includes ponded water due to extremely heavy rain over snow.

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	EGON SI	OV! BURV		SN		ER MEASU		S	
						Content			Record
DRAINAGE BASIN					(mate-dess)	· ····································	Approx.		Avg.
and	Number		Date	Snow			ate	Yrs.	Water
SNOW COURSE	or		of	Depth	2055	To # 0	7057	of	Cont.
	State	Elev.	Survey	(ln.)	1953	1952	1951	Red.	(In.)
WILLAMETTE VALLEY S	TREAMS (Cont'd)							
MIDDLE FORK WILLA	METTE RI	VER (Co	ntid)						
Railroad Overpass	ગુરુદ	2750	1/31	0.0	0.0	7.6	2.0	3	8.4
McCredie Spring	રંદર્જ	2120	1/31	0.0	0.0	3.0	T	3	4.1
Oakridge	****	1310	1/31	0.0	0.0	0.0	0.0	3	0.8
Meridian Dam	**	750	1/31	0.0	0.0	0.0	0.0	2	0.0
Snow Line: Approxi	mately 3	***************************************							
COAST FORK WILLAM	ETTE RIV	ER (Row	River)						
Champion	522	4500	1/30	42.7	19.1	42.7	20.8	14	17.8
Golden Curry Cr.	**	3136	1/30	6.0		14.7	7.0	3	13.8
Weaver Creek	ボボ	2440	1/30	T	T	4.4	1.7	2	3.0
Lund Park	**	1740	1/30	0.0	0.0	4.4	0.0	3	4.6
Layng Creek R.S.	76.76	1200	1/30	0.0	0.0	0.0	0.0	4	0.8
Snow Line: Approxi	mately		,			·	·		
	•								
MARY'S RIVER									
Mary's Peak	541	3620	2/1	2.5	0.2			ļO	5.8
	ORE	G O N	<u>c</u> <u>o</u> <u>v</u>	<u>s</u> <u>T</u>	DRA	N A G	E		
UMPQUA RIVER									
Windigo Pass	744	5800	1/31	102.4	38.3	45.4	36.4	2	40.9
Diamond Lake	743	5315	2/4	61.7		31.1	19.2	23	14.4
Whaleback	7217	5140	1/29	75.1			22.5	13	23.8
Champion	522	4500	1/30			42.7	20.8	14	17.8
North Umpqua	742	4215	2/4	3774		22.2	13.9	6	8.2
Trap Creek	741	3800		Measu		19.8		5	IO.3
ROGUE RIVER									
Wagner Butte	7213	6900	1/29	39.6	16.9	24.1	11.1	16	10.7
Seven Lakes No. 1	7211	6800	$\frac{1}{2}$	111.3				8	21.2
Big Red Mountain	729	6500	1/30	74.9		41.6	20.3	15	18.6
Little Red Mountain		65 00	1/31	60.2		29.4	14.5	14	12.4
*Park Headquarters	838	6450	1/29	126.0		67.7	49.6	7	38.2
Scragg Mountain	7220	6200	2/2	60.2		44.4	23.9	10	18.2
Seven Lakes No, 2	7212	6200	2/2	104.2		48.1		9	18.7

^{*}Not located directly on this drainage area.

**Auxiliary snow station; average of 3 to 5 samples taken at same point each survey.



	IU3GOIV DIV	511 501111	10 110			R MEASU	REMENTS	3	
			1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1		Water	Content	(In.)	Past	Record
DRAINAGE BASIN						Same A			Avg.
and	Number		Date	Snow		Da		Yrs.	Water
SNOW COURSE	or		of	Depth				of	Cont.
	State	Elev.	Survey	(In.)	1953	1952	1951	Rcd.	(In.)
ROGUE RIVER (Cont	<u>d)</u>								
*Annie Spring	831	6018	1/29	100.1	40.2	54.9	39.0	18	27.6
"Fourmile Lake	7223	6000	1/22	62.3	23.8			0	
Grayback Peak	727	6000	1/29	57.1	24.4	38.0	13.2	14	14.7
Billie Cr. Divide	722	5300		an. 15		33.7b	14.0	20	14.7
Whaleback	7217	5140	1/29 1/27	75.1	29.3	42.0	22.5	13	23.8
Hobart Lake	7221	5010	1/30	9.4	4.4 10.4	8.9	6.4	5	6.3
*Hyatt Prairie Res. Fish Lake	723 725	49 00 4865	1/25	24,9 28.6	9.2	13.3 16.0 ^b	5.8 6.8	18 19	7.0 8.5
Siskiyou Summit	728	4630	2/1	24.8	11.3	14.9	8.8	16	5.7
Althouse	7216	4400	$\frac{2}{2}$	16.3	6.2	20.7	4.3	14	4.2
Silver Burn	7219	3720	1/31	35.1	13.7	19.1	11.7	15	8.4
South Fork Canal	7218	35 00	1/31	T	T	8.9	3.4	15	3.2
KLAMATH LAKE BASIN	•		- <i>t</i>						
Seven Lakes No. 1	7211	6800	2/1	111.3	35.4	~~		8	21.2
Park Headquarters	838	6450	1/29	126.0	48.4	67.7	49.6	7	38.2
Seven Lakes No. 2	7212	6200	2/2	104.2	44.3	48.1	~ -	9	18.7
Annie Spring Fourmile Lake	831 7223	6018 6000	1/29 1/22	100.1	40.2	54.9	39 .0	18 0	27.6
Strawberry	837	5600	1/31	24.2	8,1b	14.0	6.4	9	5.9
*Quartz Mtn. (COPCO		5504	2/1	12.0	4.0	6.5ª	es est	22	5.4
Sun Mountain	836	5350	$\frac{2}{4}$	65.5	26.2	33.1	24.5	15	17.6
"Quartz Mountain	811	5 320	2/2	17.2	7.4	11.3	5,6	23	5,1
Billie Cr. Divide	722	5300		an, 15		33.7	14.0	20	14.7
Crowder Flat	Calif.	5200	1/28	9.0	3.3		2.5	12	2.7
Taylor Butte	842	5100		ort del			5.0	14	3.4
Lake of the Woods	8 35	4960	2/1	33.8		21.5	6.0	16	7.2
Hyatt Prairie Res.		4900	1/30	24.9		13.3	5.8	18	7.0
Gerber	8 39	4850	2/1	0.0	0.0	511		3	4.5
Bly IOl Ranch (COP		4800	1/31	0.0	0.0	3.5	2.50		2.1
Chemult Yemsey (COPCO)	834	4760	1/31	40.3 ort Del		18.7	12.3	16	8.4
Kirk (COPCO)		4600 4533	1/31	19.0	5,2	7.2 9.5	4.4 7.4	22 26	2.5 5.5
Beatty (COPCO)		4300	1/31	0.0	0.0	0.0	0.0	25	0.7
Crystal (COPCO)		4200	1/31	27.0	10.8	116.9	6.5	23	6.7
Harriman Lodge (CO	PCO)	4200	1/31	9.0	4.0	8.2	3.6	26	3.8
Chiloquin (COPCO)		4187	1/31	T	T	6.2	2.6	23	2.3
Fort Klamath (COPC	0)	4150	1/31	8.0	2.8	7.9	4.2	26	4.0

^{*}Not located directly on this drainage area. (COPCO) - Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

aWater content questionable. bTelegraphic.

CPartly estimated.



		SNOW COVER MEASUREMENTS							
				Snow Depth	Water	Content(In.) Same Approx. Date		Past Record Avg. Yrs. Water of Cont.	
DRAINAGE BASIN and SNOW COURSE	Number		Date of						
01/01/ 000282	State	Elev.			1953	1952	1951		(In.)
GOOSE LAKE BASIN									
Camas Creek Strawberry	911A 837	5720 5600	2/2 1/31	29.7 24.2 12.0	9.5 8.1° 4.0	16.1 14.0 6.5	7.5 6.4	14 9 22	7.5 5.9
Quartz Mtn. (COPCO) Quartz Mountain	811	5504 5320	2/1 2/2	17.2	7.4	11.3	5,6	23	5.4 5,1
]	NTE	<u>R I O R</u>	D R	AIN	AGE			
WARNER LAKE BASIN									
*Camas Creek	911A	5720	2/2	29.7	9.5	16.1	7.5	14	7.5
CHEWAUCAN RIVER									
*Quartz Mountain	811	5320	2/2	17,2	7.4	11.3	5.6	23	5.1
SILVER LAKE BASIN									
Silver Creek	942	4900	1/28	13.1	5,0		4.7	12	2.9
HARNEY BASIN									
Izee Summit Idlewild Cemp Starr Ridge Rock Spring	964 961A 247B 134	5293 5200 5156 5100	1/29 1/30 1/29 1/30	20.5 19.9 13.8 16.4	4.0 5.5	10.7 9.8 8.7 8.2	5.4 4.4 4.6 4.3	17 20 17 17	6.2 4.1 4.4 4.6
Stinking Water	135	4800	1/27	2.7	0.97	6.9	4.2	15	3.6

Not located directly on this drainage area.

(COPCO) - Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

aWater content questionable.

bEstimated CTelegraphic



	SNOW COVER MEASUREMENTS								
				110		Content			Record
DRAINAGE BASIN							Approx.		Avg.
and	Number		Date	Snow		De	ito		Wator
SNOW COURSE	or State	Elev.	of Survey	Dopth (In.)	1953	1952	1951	of Rcd.	Cont. (In,)
		J A N	UARY	1,	195	5 3			
WILLAMETTE VALLEY	STREAMS								
SANDY RIVER ¹									
Phlox Point	452	5600	1/8		22.4	-	-		23.0
Still Creek	451	3700	1/8	39.5	12.6	19.2	10.2	12	8.4
KLAMATH LAKE BASIN									
Sun Mountain	836	5350	1/10	59 .8	19.8	22.1	10.2	13	11.1
		JANU	ARY	$\frac{1}{5}$,	19	5 3			
DESCHUTES RIVER									
Cascade Summit	321	4880	1/17	50.3			16.3	2	
Hogg Pass	351	4755	1/17	66.4	27.4	39.2	23.8	2	31.5
WILLAMETTE VALLEY	STREAMS								
SANTIAM RIVERS									
Hogg Pass	351	4755	1/17	66.4				2	
Santiam Junction Marion Forks	552 553	399 0 2730	1/17 1/17	37.3 20.8	15,0 7.2	27.5 13.2	12.9 6.1	2 2	20.2 9.6
Whitewater Bridge	***	2175	1/17	0.0	0.0	7,5	2,0	4	9.4
Detroit (new town) Detroit Dam	عويد عويد	1500+ 1580	1/17 1/17	0.0	0.0	$4.3 \\ 4.3$	T	4 3	5.0 4.4
Mill City	تجاه	826	1/17	0.0	0.0	0.0		2	1.4
McKENZIE RIVER									
Hogg Pass	351	4755	1/17	66.4	27.4	39.2	23,8	2	31.5
Santiam Junction	552	3990	1/17	37.3	15.0	27.5	12.9	2	20.2

Auxiliary snow station; average of 3 to 5 samples taken at same point each survey.

¹Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

	OREGO	NONS NO	SURVEYS	- DELA	YED DAT	E (Cont	r'd)		
				SNOW COVER MEASUREMENTS					
					Water	Content	(In.)	Past	Record
DRAINAGE BASIN						Samo I	ppr ox.		Avg.
and	Number		Date	Snow		De	to	Yrs.	Water
SNOW COURSE	or		of	Dopth				of	Cont.
	State	Elev.	Survey	(In.)	1953	1952	1951	Rcd.	(In.)
	JANUA	RY	15,	195	3 (0	ONT	<u>' D)</u>		
WILLAMETTE VALLEY	STREAMS (Cont'd)	<u>)</u>						
MIDDLE FORK WILL	AMETTE R	WER							
Cascade Summit	321	4880	1/17	50.3	18.3	32.0	16.3	2	24.2
Champion	522	4500	1/14	42.5	19.5		7.5	3	23.0
Salt Creek Falls	عدعو عدعو	4000 2750	1/17 1/17	24.8	10.0	17.4	4.2	$rac{4}{4}$	16.2
Railroad Overpass McCredie Spring	***	2120	1/17	0.0	0.0	5.0 2.0	0.0	4	5.3 2.6
Oakridge	***	1310	1/17	0.0	0.0	0.4	0.0	3	1.0
Meridian Dam	***	750	1/17	0.0	0.0	0.0		i	0.0
COAST FORK WILLA	METTE RIV	ÆR							
Champion	522	4500	1/14	42.5	19.5		7.5	3	23.0
UMPOUA RIVER									
Champion	522	4500	1/14	42.5	19.5		7.5	3	23.0
Trap Creek	741	3800	1/15	29.6	11,6			1	1.0
ROGUE RIVER									
Fourmile Lake	7223	6000	1/17	54.3	23.2			0	
Billie Creek Divid		5300	1/17	49.2	18.2			2	8.4
Siskiyou Summit	728	4630	1/17	33,4	14.0	13.1	1.7	4	7.4
KLAMATH LAKE BASIN									
	7223	6000	1/17	54.3	23.2			0	
Billie Creek Divid		5300	1/17	49.2	18.2	700		2	8.4
Lake of the Woods	835	4960	1/20	34.8	12.2	13.3		1	13.3
			* * *						
GRANDE RONDE RIVER									
Beaver Reservoir	188	5340	12/30	18.5	2.6	5.1	3.9	13	5.2

Auxiliary snow station; average of 3 to 5 samples taken at same point each survey.

OREGON PRECIPITATION

	CURREI	NT YEAR	LAST YEAR			
DRAINAGE	Oct. 1, 195	2-Fob. 1, 1953	Oct. 1, 1951	-Fob. 1, 1952		
DIVISIONS	P	D	P	<u>D</u>		
Southeastorn	3,28	- 0.67	5,89	+ 1,92		
Southcentral	4.19	- 0.16	5.77	+ 1 _c 56		
Central	4.82	+ 0.01	5.92	+ 0.88		
Columbia River	8,61	+ 0.39	8.73	+ 0.66		
Wallowa Mountains	6.15	- 1.42	8.01	+ 0.16		
Blue Mountains	4.85	- 1.28	7.21	+ 0,29		
Southern	16.06	+ 2.40	20.70	+ 7.08		
Willamette Valley	27.58	+ 0.74	34.07	+ 5.57		

P - Inches Precipitation

Southeastern

- Malhour and Owyhoe drainages.

Southcentral

- Interior Basin drainages and Goose Lake.

Central

- Deschutes and Crocked drainages,

Columbia River

- Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages.

Wallowa Mountains

- Imnaha, Wallowa, Catherine, Eagle and Pine drainagos.

Blue Mountains

- Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainagos.

Southern

- Umpqua, Rogue and Klamath drainages.

Willamette Valley - All Willamette drainagos.

NOTE: Stations used for determining the averages for the current year are not necessarily the same as these used last year,

D - Inches Departure from Normal.

aPreliminary data computed from Woather Bureau records.

	Number			******	
SNOW COURSE	or	Sec-	Town-		Elev-
S1/0// 00010D	State	tion	ship	Range	ation
	50200	OTOH	GIIIP	naige	a o I o II
Althouse	7216	17	41S	7W	4400
Aneroid Lake #1	183	16	4S	45E	7480
Aneroid Lake #2	183A	16	4S	45E	7000
Annie Spring	831	19	318	6E	6018
Anthony Lake	155	18	7S	37E	7125
Arbuckle Mountain	241	33	48	29 E	5400
Bald Mountain	Nev.1	17	45N	21E	6720
Barney Creek	143	16	148	36E	5950
Bear Creek	Nev.1	31	46N	58E	7800
Beatty (COPCO)	Oreg.	22	36S	12E	4300
Beaver Reservoir	188	8	58	37E	5340
Beech Creek Summit	246A	4	128	30E	4800
Big Bend	Nev.6	30	45N	56E	6700
Big Bottom	**	25	6S	7E	2118
Big Red Mountain	729	31	403	iW	6500
Billie Creek Divide	722	30	36S	5E	5300
Black Pine Spring	**	14	168	9E	4600
Blue Mountain Springs	133	21	158	35 E	5900
Blue Mountain Summit	141	6	128	36E	5098
Bly IO1 Ranch (COPCO)	Oreg.	22	35 S	14E	4800
Bourne	154	33	8S	37E	5800
Breitenbush	551	21	98	7E	2325
Brooks Meadows	431	2	- 2S	IOE	4300
Caldwell Ranch	326	30	215	8E	4400
Camas Creek	911A	5	39 S	21E	5720
Camp Carson	187	33	6S	36E	5970
Cascade Summit	321	. 7	238	6E	4880
Champion	522	12	23S	1E	4500
Charlton Lake	327	23	215	6E	5750
Chemult	834	21	27S	8E	4760
Chiloquin (COPCO)	Oreg.	34	34S	7E	4187
Clackamas Lake	592	35	55	8] E	3400
Clear Lake	361	29	43	9E	35 00
Coverdale	171	22	5S	47E	4250
Crane Prairie	137	24	168	34E	5375
Crescent Lake	325	11	243	6E	4760
Crowder Flat	Calif.	30	47N	11E	5200
Crystal (COPCO)	Oreg.	26	34S	6E	4200
Derr	343	14	138	23E	5670
Dead Horse Grade	تنات	13	168	7E	3800
Detroit Dem	<i>څو</i> څو	7	los	5E	1580
Detroit (new town)	**	'n	108	5E	1500+
Diamond Lake	- 743	29	275	6E	5315
Disaster Peak	Nev.6	8	47N	34E	6500
Dixie Springs	244	28	118	34E	6650
Dooley Mountain	156	32	118	40E	5430

⁽COPCO) - Water content determined by melting a measured sample.

(The California Oregon Power Co.'s Station)

**- Auxiliary snow station; average of 3 to 5 samples taken at

same point each survey.

INDEX OF SNOW COURSE LOCATIONS (Contid)

INDEX OF BROW COURSE LOCATION	Number				
SNOW COURSE	· or	Sec-	Town-		Elev-
51. VI. 0002162	State	tion	ship	Range	ation
Eilertson Meadows	151B	18	88	38E	5400
Emigrant Springs	222	29	lN	35 E	39 25
Fish Creek	952	4	33S	33E	7900
Fish Lake	725	3	37S	4E	4865
Fort Klamath (COPCO)	Oreg.	22	338	7是	4150
Fourmile Lake	7223	9	36S	5E	6000
Fox Creek	Nev.2	33	46N	58E	6800
Fry Canyon	Nev. 7	31	43N	54E	6700
Gerber	839	12	39 S	13E	4850
Gold Center	249	21	98	36E	5340
Gold Creek	Nev.5	31	45N	56E	6600
Golden Curry Creek	عدعد	1	238	1E	3136
Goodrich Lake		34 & 35	8\$	38E	6775
Granite Peak	Nev.4	22	44N	39 E	7800
Grayback Peak	727	9	40S	5W	6000
Greenpoint Reservoir	433	28	SN	9E	3400
Harriman Lodge (COPCO)	Oreg.	3	36\$	6E	4200
Hobart Lake	7221	17	40S	3E	5010
Hogg Pass	351	24	138	7起	4755
Hungry Flat	**	30	188	11E	4400
Hyatt Prairie Reservoir	723	15	39 S	3E	4900
Idlewild Camp	961A	33	205	31E	5200
Irish-Taylor	329	25	208	6E	5500
Izee Summit	964	28	168	29E	5293
Kirk (COPCO)	Oreg.	10	338	7E	4533
Lake Creek	136 **	10	168	33 2 E	5120
Lake Harriet		4 11	6\$	7E	204 5 4960
Lake of the Woods	835 پىپ	31	37S 21S	5E 1E	1200
Layng Creek R.S. Little Red Mountain	7210	25	40S	2W	6500
Lost Creek Rench	1210	24	168	6E	1956
Lower Buckskin	Ne v. 1	25	45N	39 E	6700
Lower Jack Creek	Nev.9	18	42N	53E	6800
Lucky Strike	Ne v. 9 223	28 28 28	38	32E	5050 1740 2730
Lund Park Marion Forks	553	22	22S 11S	1E 7E	2730
Marks Creek	344	25	125	19E	4540
Martin Creek	Nev.3	18	44 N	40E	6700
Mary's Peak	541	21	125	7W	3620
McCredie Spring	がなって	36	218	4E	2120
McKenzie	531	35	158	72E	4800
McKenzie Bridge	**	13	16S	5E	1372
Meacham		24&25	ls	35E	4300
Meridian Dam	**	13	198	1W	750
Midas	Nev. 6	18	39 N	46E	7200
Mill Creek	922	ì	34 S	17E	6200
Mill City	***	29	98	3E	826
Moss Spring	186A	28	3S	41E	5850
New Crescent Lake	325A	11	248	6E	4800
New Dutchman Flat	324A	21	185	9E	6400
North Umpqua	742	19	265	6E	4215
Oakridge	***	16	218	3E	1310
Ochoco Meadows	341	21	138	20E	5200
Olive Lake	245	14	98	33] E	6000
Park Headquarters	838	8	31 S	е́Е	6450
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INDEX OF SNOW COURSE LOCATIONS (Cont'd)

INDEX OF SHOW COURSE LOCATION			· 		
CHOW COVERED	Number		M		T3 T
SNOW COURSE	or	Sec-	Town-	Dommo	Elev-
	State	tion	ship	Range	ation
Peavine Ridge	59 I	14&15	6S	7E	3500
Phlox Point-Mt. Hood	452	6	3S	9E	5600
Quartz Mountain	811	2	38S	16E	5320
Quartz Mountain (COPCO)	Oreg.	33	37S	16E	5504
Railroad Overpass	35%	27	225	5E	2750
Red Hill	434	21	18	9E	4400
Rock Spring	134	23	185	32E	5100
Rodeo Flat	Nev.8	36	43N	5 3E	6800
Salt Creek Falls	## 140 1 •0	33	2 2 S	6E	4000
Santiam Junction	552	14	13S	7E	3990
Schneider Meadows	161	35	6S	45E	5400
Schoolmarm	248	28	4S	34 E	4775
	7220	9	47N	low	6200
Scragg Mountain	7211	3	34S	5E	6800
Seven Lakes #1 Seven Lakes #2	7212	26	33 S	5E	6200
Silver Burn	7219	30		4E	3720
		6	30S 5S	3W	6400
Silver City	Ida.12 942	25 & 26	29 G	13E	4900
Silver Creek					6900
Silvies	951	35	32S	33E	
Siskiyou Summit	728	17	403	2E	4630
Snow Mountain	965	1	198	26E	6300
South Fork Canal	7218	12	33S	3E	3500
South Mountain #2	Ida.13	35	7S	5W	6340
Starr Ridge	247B		15S	31E	5156
Still Creek	451	25	3S	8法	3700
Stinking Water	135	33	218	34E	4800
Strawberry	837	4	40S	16E	5600
Summer Rim	841	15	33S	16E	7200
Summit Springs	184	9	6S	37E	6000
Sun Mountain	836	22	325	7 <u>늘</u> E	5350
Tamarack	34.2	8	15S	25E	4800
Tangent	花花	28	18S	IOE	5400
Taylor Butte	842	16	333	11E	5100
Taylor Canyon	Nev.12	35	39 N	53E	6200
Taylor Green	185	3	6S	42E	5740
Three Creeks Meadows	331	3	178	9E	5600
Tilly Jane-Mt. Hood	432	15	28	9E	6000
Tipton	142	34	108	35] E	5100
Tollgate	212	32	4N	38E	5070
Trap Creek	741	1	278	4E	3800
Tremewan Ranch	Nev.11	9	39 N	55E	5700
Upper Buckskin	Nev.2	11	45 N	39 E	7200
Upper Jack Creek	Nev.10	9	42N	53E	7250
Vidae	بالمالا	28	16S	2E	800
Wagner Butte	7213	1	40S	IW	6900
Waldo Lake	521A		213	6E	5500
Weaver Creek	يزيد	35	228	1E	2440
Whaleback	7217	3	31S	2E	5140
White Branch Slide	عيديد	15	165	7E	2800
Whitewater Bridge	**	28	IOS	7E	2175
Willamette Pass	323	21	248	5불표	5600
Windigo	744	20	25S	6E	5800
Yamsey (COPCO)	Oreg.	20	31S	11E	4600
76 Creek	Ne v. 4	6	44N	58E	7100



The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooporative Snow Surveys
Novada Cooporative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Dopartment of Agriculture
Forest Service
Soil Conservation Service
Dopartment of Commerce
Weather Bureau
Dopartment of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Goological Survey
Indian Service
National Park Service
Dopartment of National Defense
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company Portland General Electric Company The California Oregon Power Company

MUNICIPALITIES

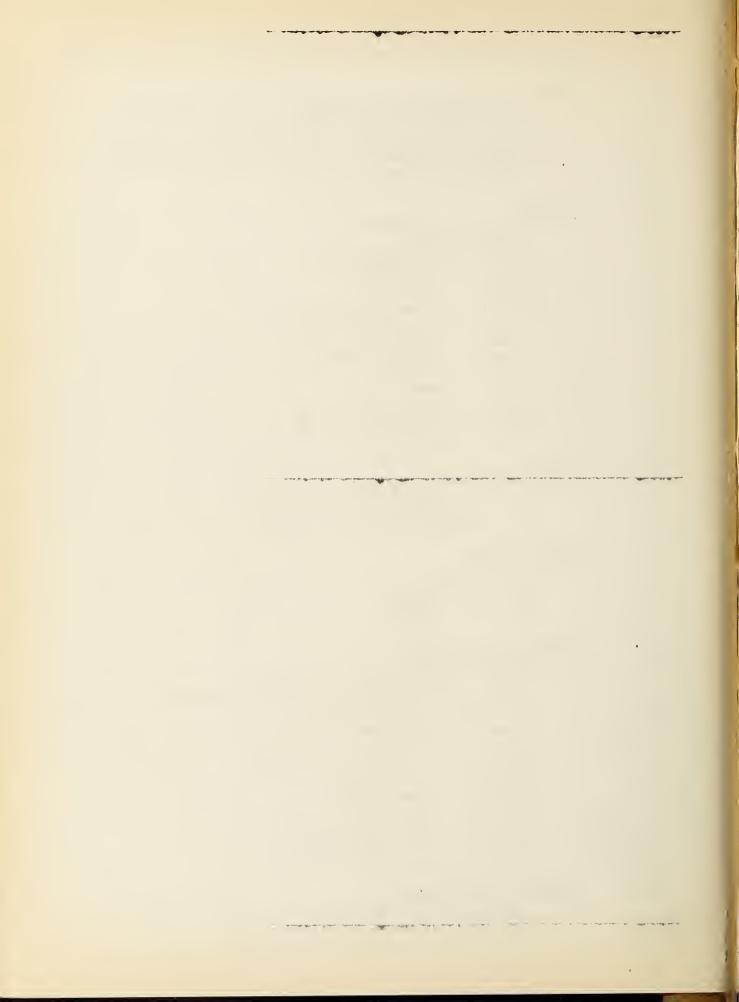
City of Baker City of La Grando City of The Dalles

IRRIGATION DISTRICTS

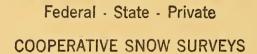
Associated Ditch Companies
Contral Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users, Incorporated
Modford Irrigation District
Ochoco Irrigation District
Regue River Irrigation District
Talent Irrigation District
Valo-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamatod Sugar Company South Wasco Scil Consorvation District The Crag Rats, Hood River, Oregon







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"